



State of Utah

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Environmental Quality

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DAQ-075-07

MEMORANDUM

TO: Air Quality Board

THROUGH: Cheryl Heying, Executive Secretary

FROM: Colleen Delaney, Environmental Scientist
Jim Schubach, P.E., Environmental Engineer

DATE: October 18, 2007

SUBJECT: CFR 40 51.309 Regional Haze Update

Background

EPA adopted the Regional Haze Rule on July 1, 1999 (40 CFR 51.308-309) mandating each state to develop a Regional Haze State Implementation Plan (SIP) to incorporate measures necessary to make reasonable progress towards national visibility goals. The regional haze problem is in large part caused by the long-range transport of emissions from multiple sources. The regional haze rule mandated states to undertake a wide range of emission reduction strategies with a major emphasis on large unregulated stationary sources. Section 308 required states to impose Best Available Retrofit Technology (BART) on a specified class of large stationary sources that had commenced operation between 1962 and 1977. Section 309 of the Haze Rule permits states to address haze issues through alternative programs, including a regional approach, as long as the alternative would be "better than BART." On June 5, 2003, EPA approved the Western Regional Air Partnership's (WRAP) Annex to the Grand Canyon Visibility Transport Commission (GCVTC) report as an alternative regional haze program. EPA approved the "Annex" as meeting the requirements of §51.309 of the regional haze regulations and codified the Annex provisions into the Annex Rule @ §51.309 (h). Five states - Arizona, Oregon, New Mexico, Utah and Wyoming (the §309 States) - and one local agency submitted SIPs under §309 that were developed on the basis of the Annex.

The Air Quality Board adopted the Utah Regional Haze SIP and the rules that implement it on November 17, 2003. These documents became effective and enforceable in Utah on December 31, 2003. The Regional Haze SIP was submitted to the Environmental Protection Agency on December 12, 2003. EPA has not approved Utah's 2003 Regional haze SIP.

The Regional haze regulation was challenged in the courts. On February 18, 2005, the DC Circuit granted a petition challenging provisions of the Annex Rule (*CEED vs. EPA*), and on October 13, 2006, EPA revised the Annex Rule governing alternative regional haze programs under §309 (71 FR 60612). The rule revisions under §308 and §309 each require a revision to the Utah Regional Haze SIP by December 2007.

Required SIP Revisions

Utah is currently developing an update to the 2003 Regional Haze SIP based on the revised federal regional haze rules. The revisions to the SIP which must be made include the following:

- Reestablish the SO₂ milestones for the alternative regional haze program adopted under §309
 - The Annex Rule was an alternative regional haze approach that allowed states to address the impact of SO₂ on a regional basis. The program milestone emissions were designed to demonstrate a steady and continuing emissions reduction through 2018 consistent with the GCVTC definition of “reasonable progress.” The GCVTC determined reasonable progress as a 50 to 70 percent reduction in SO₂ emissions from 1990 actual emissions levels by 2040 (Figure 1 attached). The §309 States are required by the new §309 rule to reestablish the emissions reduction milestones under the Annex to account for regulatory requirements and control technology factors as they currently exist. The §309 States are coordinating through the WRAP to reestablish the 2003 milestones and expect to be finished by November 2007.
- Review the “Better than BART” determination for the SO₂ alternative (milestone) program
 - The original Annex demonstrated that the alternative §309 program was an approach that was as effective as the §308 program in reference to stationary sources subject to BART (“Better than BART”). The §309 States are coordinating through the WRAP to update the Annex “Better than BART” demonstration and expect to be finished by November 2007.
- Develop a stationary source BART determination for NO_x and PM
 - PacifiCorp has committed to retrofit the only two sources subject to BART in Utah at the Hunter and Huntington Power Plants. The retrofit will reduce emissions of SO₂, NO_x, and PM in accordance with the requirements of the §309 rule to address NO_x and PM. While mercury reductions are not required by the regional haze rule the retrofit of the PacifiCorp units will include substantial reductions in mercury. Utah expects all retrofit applications for the plants by December of 2007.
 - PacifiCorp has committed to the following emission reductions:

Unit	Pre-Control SO ₂	Pre-Control NO _x	Pre-Control PM ₁₀	Post-Control SO ₂	Post-Control NO _x	Post-Control PM ₁₀	Delta SO ₂	Delta NO _x	Delta PM ₁₀
Hunter 1	2741	6833	533	2239	4851	280	-502	-1981	-253
Hunter 2	2425	5922	533	2185	4734	273	-240	-1187	-260
Huntington 1	2538	5676	444	2052	4445	256	-486	-1231	-188
Huntington 2	13703	5582	443	1743	3776	218	-11960	-1806	-225
TOTALS	21,407	24,013	1,953	8,219	17,807	1,027	-13,189	-6,206	-926

Mercury Emission Factors (EF)			
Plant Name	Current (lb/TBtu)	Expected (lb/TBtu)	% Change (EF)
Hunter 1	1.58	0.30	-81.01%
Hunter 2	1.58	0.30	-81.01%
Huntington 1	0.84	0.30	-64.29%
Huntington 2	0.84	0.30	-64.29%

- Update the long-term strategy for stationary sources of NO_x & PM
 - Updates for the revised SIP long-term strategies for NO_x & PM are dependent on the development and updating of regional emissions data and analytic tools by WRAP. Utah expects to have updates completed by November of 2007 using the latest available information.

Regional Haze Schedule

The §309 Regional Haze SIP revision is due on December 17, 2007. Given the new requirements of the revised rules under §309 and the late release of rule revisions most states are not going to meet the December 17 deadline. This is the case for both the states submitting a Regional Haze SIP based on the §308 rule as well as the four remaining §309 states: Arizona, New Mexico, Utah and Wyoming. EPA is aware that the states are not in a position to meet the December 2007 deadline and they are working with the states to complete the SIP development and update process early in 2008.

The revised §309 Regional Haze SIP development schedule anticipates a draft SIP to the Air Quality Board in January of 2008 and a 309 SIP submittal to EPA in May or June of 2008.

**Figure 1 - Original SO2 Milestones in the Five 309 States
Compared to the GCVTC Recommendations**

